



## Climate variability, vulnerability, and coping mechanism in Alaknanda catchment, Central Himalaya, India

---

**Author(s):** Kumar K, Joshi S, Joshi V  
**Year:** 2008  
**Journal:** Ambio. 37 (4): 286-291

---

### Abstract:

A study was carried out to discover trends in the rainfall and temperature pattern of the Alaknanda catchment in the Central Himalaya. Data on the annual rainfall, monsoon rainfall for the last decade, and average annual temperatures over the last few decades were analyzed. Nonparametric methods (Mann-Kendall and Sen's method) were employed to identify trends. The Mann-Kendall test shows a decline in rainfall and rise in temperature, and these trends were found to be statistically significant at the 95% confidence level for both transects. Sen's method also confirms this trend. This aspect has to be considered seriously for the simple reason that if the same trend continues in the future, more chances of drought are expected. The impact of climate change has been well perceived by the people of the catchment, and a coping mechanism has been developed at the local level.

**Source:** <http://www.jstor.org/stable/25547899> <http://www.ncbi.nlm.nih.gov/pubmed/18686508>

### Resource Description

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Public

#### Exposure :

weather or climate related pathway by which climate change affects health

Precipitation, Temperature

#### Geographic Feature:

resource focuses on specific type of geography

Mountain

# Climate Change and Human Health Literature Portal

## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Asia

**Asian Region/Country:** India

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

## **Intervention:**

strategy to prepare for or reduce the impact of climate change on health

A focus of content

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

**Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Workers

**Other Vulnerable Population:** Residents of high-altitude locations

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Resilience:**

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content

